

“Land-Fill-Harmonic” Inspired Multicultural Musical Instruments
Discovery Center: Second Grade
April 2013

Lesson Synopsis:

Recycled Global Musical Instruments - Design Thinking Challenge: Utilizing the Engineering Design Process and their creativity, second grade students will make global-multicultural musical instruments from recycled materials, as inspired by the “Land-Fill-Harmonic” Orchestra. Students will learn how people around the world make music. In some really amazing, beautiful, and diverse ways! The instruments used to make music around the globe are also quite diverse and often made from unique materials. Some are crafted from dried gourds, bones, bamboo or from wood. There are also instruments that use repurposed items – such as the cajón from Peru. This “box drum” was originally made in secret from shipping boxes and dresser drawers when slaves were forbidden to use their African-style drums. If you add a set of thimbles to a washboard, you turn a household tool into a percussion instrument! It is easy to see how common items can take on new usages and meaning. There are also some modern ways or recreating ancient instruments. Didgeridoos, originally from Aboriginal culture of Australia, can now be found all over the world. Instead of the original didg made from a tree branch hollowed out by ants, some are made from pvc piping – the type found in most modern bathrooms. Other unique ones include one made from a long tube and an orange traffic cone and one made from used crushed, metal Chinese food containers. People have become really creative in making and remaking instruments – often with the coolest recycled materials. And these students can too!

Objectives:

Students will experience the Discovery Center; employ basic Engineering Design Process; utilize technology tools; and, “look for [their] student learning”.

Basic Engineering Design Process:

Brainstorming; Planning; Creating; Modifying; Team problem solving

Cross-Curricular Integration:

IPC – Rain Forest / Environmental Issues & Global Awareness; Science – Recycling; and, The Arts

Musical Instrument Possibilities:

Didgeridoo (Australia); Cajon “box drum” (Latin America); Washboard (Cajun America); String Thing - Dulcimer (Appalachian America); Guiro (Latin America); Pow-Wow Drum (Native American); Shekere (Africa); Maracas (Latin America); Sistrum (Ancient Egypt); Gong (Ancient China); Cajita (Peru); Kalimba (Kenya Africa).

Materials:

See attached Instrument Description/History/Construction-Guidelines/Materials.

Time:

Two class periods (45 minutes; 30 minutes)

Procedure:

1. Introduction:
 - a. Define “Discovery Center” / “Engineers”;
 - b. Show/Discuss “The Land-Fill-Harmonic” Video; and,
 - c. Make Global Connections = Music and Environmental Issues are Universal.
2. Problem: How do I create a multicultural musical instrument from recycled materials?
3. Brainstorm: Review Instrument Histories and Construction Instructions.
4. Plan / Team Problem Solving:
 - a. With team discern what is needed for construction;
 - b. Go on a “Landfill Scavenger Hunt” to find appropriate materials; and/or,
 - c. Design/draw instrument.
5. Create: Build instruments following designs and using available materials.
6. Modify: Play instrument with selected music; make changes as needed.

Assessment:

1. Student interactions/participation
2. Student musical instruments
3. Student performance
4. Student self- and peer-evaluation

Extension (Possible): Orchestrated Performance at an Assembly.